

Report to the Chief Officer (Highways and Transportation)

Date: 20 January 2015

Subject: To waive Contract Procedure Rules and to enter a contract with Miovision for data processing, hosting and analysis package for Traffic Counts

Are specific electoral Wards affected? If relevant, name(s) of Ward(s):	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are there implications for equality and diversity and cohesion and integration?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the decision eligible for Call-In?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the report contain confidential or exempt information? If relevant, Access to Information Procedure Rule number: Appendix number:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Summary of main issues

- 1 Leeds City Council (LCC) has been at the forefront of collecting both Automatic Traffic Counts (ATC's) and Manual Classified Counts (MCC's) in West Yorkshire since the late 1970's. On the ATC side LCC has kept pace with the ever growing advances in both the hardware and software employed to collect and analyse traffic flow data and the MCC's have been conducted by utilising casually employed Traffic Census Enumerators (TCE's).
- 2 In the current age of advancements in the field of transport data collection our competitors both at local authority level and external consultants have been able to deliver the MCC function using the latest automated video analysis technology.
- 3 With the recent down turn in economy and hence the pressures on local authorities to deliver services in a cost effective manner yet maintaining the high standard of project delivery we have undertaken steps to explore the possibility of utilising automated video analysis technology to undertake our MCC's programme.
- 4 The uniqueness of the data analysis package offered by Miovision that makes it different to anything else out there in the current market is the analysis is undertaken electronically and not manually hence offering greater accuracy (95%) and faster turnaround of results (within 24 hrs).

Recommendations

- 5 The Chief Officer (Highway and Transportation) is requested to approve: 9 – ‘High Value Procurements’
- i) the waiver of Contract Procedure Rule: 9.1 and 9.2 – ‘High Value Procurements’;
 - ii) the entering into a contract with Miovision Technologies for the purchase of 4 Scout Video Collection Units; and
 - iii) the entering into a contract with Miovision Technologies to utilise their data processing, hosting and analysis package for a period of 4 years and extendable for a further 1 year (amount based on number of surveyed submitted for analysis)

1 Purpose of this report

- 1.1 This report sets out the rationale for acquiring the video cameras and the associated data processing, hosting and analysis package.

2 Background information

- 2.1 Leeds City Council (LCC) has been at forefront of collecting both Automatic Traffic Counts (ATC's) and Manual Traffic Counts (MCC's) in West Yorkshire since the late 1970's. On the ATC side LCC has kept pace with the ever growing advances in both the hardware and software employed to collect and analyse traffic flow data. Whereas the MCC's have been conducted by utilising casually employed Traffic Census Enumerators (TCE's).
- 2.2 In the current age of advancements in the field of transport data collection our competitors both at local authority level and external consultants have been able to deliver the MCC function using the latest automated video analysis technology.
- 2.3 With the current down turn in economy and hence the pressures on local authorities to deliver services in a cost effective manner yet maintaining the high standard of project delivery we have undertaken steps to explore the possibility of using automated video analysis technology to undertake our MCC's programme.
- 2.4 The uniqueness of the data analysis package offered by Miovision makes it different to anything else out there in the current market is the analysis is undertaken electronically and not manually hence offering greater accuracy (95%) and faster turnaround of results (within 24 hrs) at a lower cost.

Video Trial

- 2.5 At the West Yorkshire Monitoring Group meeting in December 2012, the European Sales Manager for Miovision Technologies (www.miovision.com) gave a presentation on their video recording and analysis system. The presentation was well received and with further discussions and analysis of possible savings it was decided with our district partners that LCC would lead on the Video Trial.

- 2.6 In August and September 2013 a trial of the Miovision system was undertaken. The following trial sites were selected, each distinctly different in its design and physical layout in order to test all the capabilities of the Scout system:
- Ring Road Middleton (Single Carriageway, link and pedestrian count)
 - Leathley Road \ Jack Lane (T Junction, turning count)
 - Middleton Park Avenue \ Acre Road (Medium Roundabout, turning count)
 - A65 Leeds Road \ B6152 Harrogate Road (Staggered Crossroads, turning count)
 - A65 New Road Side \ A658 Green Lane (Large Roundabout, turning count)
 - A658 Green Lane \ B658 Harrogate Road (T Junction, turning count)
- 2.7 The equipment installation was undertaken by our ATC team and the average set up and take down times were 20 minutes and 15 minutes respectively.

Trial Data Upload and Analysis

- 2.8 One of the difficult parts of this trial was resolving in-house IT issues for the upload of the video data. Due to the strict LCC IT security requirements we were not able to utilise Miovisions Traffic Data Online facility to upload or view very large (9GB in total) recorded video data. After lengthy discussions with LCC IT a solution was found in the way of GlobalScape Enhanced File Transfer, **which is a secure ad-hoc file transfer system** where data was uploaded onto LCC's secure file server and login details supplied to Miovision to enable them to download the data at their end.
- 2.9 LCC IT will endeavour to allow us the use of Miovisions standard methods should we go ahead..
- 2.10 Once the data was uploaded it was a 24 hour turnaround for the results. The Miovision Traffic Data Online system is easy to navigate and we were able to access the results in the required format without any form of training.
- 2.11 Video footage is available to enable us to scrutinise the data provided. All Miovision counts are guaranteed 95% accuracy compared to +/- 10% for manual counts. During the trial in-house checks were undertaken of the data collected to confirm this level of accuracy was being delivered.
- 2.12 The quality of the results were to a such a high standard that we decided to use the data from 3 locations in a study of heavy goods vehicles (HGV's) using A658 Green Lane in Yeadon
- 2.13 The cost comparison for the above study between using LCC enumerators and video technology is as follows:

Task	Manual Count	Video Technology	Savings (Loss)
Planning	£50	£0	£50

Set Up	£0	£24	(£24)
Conduct	£1560	£0	£1560
Set Down	£0	£24	(£24)
Processing	£125	£960	(£835)
Total	£1735	£1010	£725

Table 2.0 Cost Comparison of Manual and Video Surveys for the A658 Green Lane Yeadon Study.

- 2.16 Table below summarises cost attributed to different providers compared against Miovision option for standard 12 hour count: **the total cost from organising the survey, on site observations, data input and reporting to client:**

Count Type	Call Off Manual	Call Off Video	LCC Manual	Miovision Video
3 leg junction	£270	£190	£410	£198
4 leg crossroads	£380	£290	£720	£198
4 leg roundabout	£490	£390	£720	£312
Quiet Road (link)	£180	£180	£190	£94
Fairly Quiet Road (link)	£270	£190	£200	£94
Ordinary Road (link)	£270	£220	£200	£116
Quite Busy Road (link)	£490	£260	£410	£139
Busy Road (link)	£490	£280	£410	£139
Very Busy Road (link)	£710	£320	£1030	£210
4 Lane Dual M'way (link)	£930	£430	£1390	£278

Table 3.0 Cost Comparison between different Providers

Supplier	Cost
Miovision	£11 - £20
Sky High	£25
Nationwide Data Collection	£40 - £70
JES Traffic Ltd	£50
LCC Enumerators	£51

Table 4.0 Cost Comparison between different Providers (for 1 hour analysis only of 4 arm junction)

- 2.14 The Policy Monitoring Team currently use the most appropriate resource to undertake surveys based on cost, availability and suitability of data. The proposed Miovision contract would provide a further resource to improve the efficiency of the service and reduce the overall costs.

- 2.15 Approximately 50% of the surveys could be undertaken using this equipment and analysis method therefore the contract would be typically around £30,000 per annum.
- 2.16 There is potential to undertake work for other districts in West Yorkshire. All the districts have teams of enumerators at present and therefore this is only potential at present. The most likely scenario is some more complex surveys might be delivered by LCC using the Miovision system. This would be limited by the capacity of our team to install cameras. They already set up over 500 automatic traffic counts per year across WY. Their capacity to deliver any more than this level could not be achieved without more staff, equipment and vehicles.

Market Analysis

- 2.17 LCC Policy Monitoring team have over 20 years' experience in traffic surveys and keep abreast of the latest technologies. However, given the time elapsed since the trial of the equipment we have rechecked the market to ensure there are no alternative analysis systems available for the service we require.
- 2.18 In order meet our requirements the system need to meet the following criteria:
- Provides data of turning movements at junctions
 - Classifies vehicles including pedestrians and cyclists
 - Temporary yet secure set up which can be installed from ground level
 - Provides data in a format that can be stored in C2
 - ANPR capability
 - Guaranteed accuracy equal to, or greater than, standard surveys methods
 - Provide all of the following; Software, Hardware and Website for upload and hosting of data
- 2.19 A number of companies listed below offer video surveys \ analysis:
- Smart CCTV
 - Golden River TMS
 - CA Traffic
 - JES Traffic Ltd
 - Nationwide Data Collection
 - Sky High Technology Ltd
- 2.20 However they do not meet our specification for the following reasons:
- A number of companies supply either the hardware or the software but not both
 - Uploading and hosting of data on Website enables access to both internal and external clients, none of the above companies offer this facility

- Smart CCTV – the main difference is with the hardware they show on their website is that the cameras are designed to be stationed permanently at a fixed location
- CA Traffic only specialises in ANPR cameras
- Miovision offers unique hardware and software capabilities, unrivalled by anything else out there in the market
- JES, NDC and Sky High analyse the video data manually hence no greater accuracy than what we are currently using
- We have spare capacity within our existing workforce to undertake the installation side hence making best use of our current resources
- Because of the sensitive nature of Video Surveys it is much simpler and less resource intensive to manage the associated protocols in-house

2.21 Given the realistic value of the contract we do not believe a bespoke solution from a video analysis specialist could be developed specifically for this contract. It would also require significant input from us to get the right product and we do not have the resources to invest in such a solution.

2.22 Miovision have protected their unique system with a multitude of patents. They offer a video analysis solution design specifically for traffic surveys.

2.23 In conclusion we believe the Miovision product is a unique product and as such the waiver is the appropriate.

Camera Installation and Data Protection

2.24 The installation of cameras for survey purpose causes concern on the part of residents and the business community as whole, LCC will ensure that we are fully compliant in the following areas:

- public liability insurance for at least 2 million pound
- data protection policy compliance with the requirements of the Data Protection Act 1998
- processing of personal data (especially in case of video surveys) must comply with the eight principles of good practice as outlined in the Data Protection Act 1998 and data protection principles
- the processing of personal data complies with the Human Rights Act 1998, and the rules relating to confidentiality and in particular to the convention rights including Article 8.1 which provides "Everyone has the right to respect for his private and family life, his home and his correspondence."
- data security measures (data encryption, secure file transfer, password protection and secure storage)
- risk assessments and method statements in place for the installation of the camera equipment

- having a protocol in place to inform all concerned with locations and reasons for installing such equipment.

3 Main issues

- 3.1 With restrictions on external recruitment, coupled with an ageing group of TCE's, LCC is struggling to undertake its current programme of MCC surveys. At the same time we are outsourcing a large number of surveys to external consultants because of a lack of technology and in- house resources.
- 3.2 The cost comparison between different methods of MCC data collection demonstrates that there are significant savings to be made by investing in this technology.
- 3.3 It provides better and more accurate monitoring of highway improvement schemes.
- 3.4 It will enable LCC to compete on a level playing field with our competitors for external work.
- 3.5 We will be able to sell our video counting and analysis package to the neighbouring local authorities as well as external clients to generate additional external income for the department.
- 3.6 The anticipated expenditure by Leeds during the 4 year contract period is £120,000 (£30,000 per year) for the data analysis and £10,400 one off cost to purchase the cameras and the associated hardware. Therefore, the total cost for the 4 year contract plus 1 year extension would not exceed £150,000.

Reason for Contracts Procedure Rules Waiver

- 3.7 The uniqueness of the data analysis package offered by Miovision that makes it different to anything else out there in the current market is the analysis is undertaken electronically and not manually hence offering greater accuracy (95%) and faster turnaround of results (within 24 hrs).

Consequences if the proposed Waiver is not approved

- 3.8 We would struggle to deliver the MCC programme of works with our current TCE resources and at same time not offering value for money to our internal LCC clients.
- 3.9 With the already small number of TCE pool the alternative would be to undertake a major staff recruitment, with the current financial challenges being faced by the Council this could not be justified.
- 3.10 We would continue to outsource large and complex surveys to external companies and therefore not meeting one of the Council Core Value of '*Spending Money Wisely*'.
- 3.11 We will be unable to generate external income, which is paramount in the current economic climate.

- 3.12 We will be unable to compete with our competitors for MCC work due to the lack of cost effective and specialist counting equipment and analysis package.

Advertising

- 3.13 The services have not been advertised to other providers for the reasons set out at paragraph 3.7 above.

4 Corporate Considerations

4.1 Consultation and Engagement

- 4.1.5 Consultation has taken place with H&T Procurement and PPPU&PU.
- 4.1.6 The service undertook a full trial for the use of the equipment and subsequent analysis
- 4.1.7 We consulted with our IT department for the software and data upload protocols.
- 4.1.8 References have been taken from two local authorities currently using this equipment.

4.2 Equality and Diversity / Cohesion and Integration

- 4.2.1 An Equality, Diversity, Cohesion and Integration Screening has been prepared and an independent impact assessment is not required for the approvals requested.
- 4.2.2 The screening process confirmed that the proposals have no impact on any of the equality characteristics.
- 4.2.3 A copy of the screening report is attached as Appendix A.

4.3 Council policies and City Priorities

- 4.3.1 Traffic data underpins decisions made during transport scheme feasibility and design. The data is also used in monitoring the effectiveness of strategies and policies across the districts.
- 4.3.2 To be able to provide this service to other districts embraces the ambition for Leeds to be an Enterprising City.

4.4 Resources and value for money

- 4.4.1 There will be one off cost of £10,400 for the purchase of 4 cameras at £2,600 per unit payable from the Transport Policy budget.
- 4.4.2 With the cost savings and potential external income the total cost of the 4 cameras will recouped within first 12 months.
- 4.4.3 It is intended that the set up and take down of the video equipment will be undertaken by our current ATC team and therefore there will not be any additional resource implication.

4.5 Legal Implications, Access to Information and Call In

- 4.5.1 The report is a significant operational decision and is not subject to Call In. There are no grounds for treating the contents of this report as confidential with the Council's Access to Information Rules.
- 4.5.2 Awarding contracts directly to the contractors in the way proposed could leave the Council open to a potential claim from other contractors to whom this contract could be of interest. In terms of transparency, it should be noted that it is a requirement of European case law that contracts of this value are subjected to a degree of advertising. It is up to the Council to decide what degree of advertising is appropriate. In particular, consideration should be given to the subject-matter of the contract, the estimated value, the specifics of the sector concerned (size and structure of the market, commercial practices, etc.) and the geographical location of the place of performance.
- 4.5.3 The Chief Officer (Highways & Transportation) has considered this and, due to the nature of the services being delivered, the fact that only Miovision Technologies can offer this service and the relatively low value of this contract, is of the view that the scope and nature of the services is such that it would not be of interest to contractors in other EU member states.
- 4.5.4 There is a risk of an ombudsman investigation arising from a complaint that the Council has not followed reasonable procedures, resulting in a loss of opportunity. Obviously, the complainant would have to establish maladministration. It is not considered that such an investigation would necessarily result in a finding of maladministration however such investigations are by their nature more subjective than legal proceedings.

4.6 Risk Management

- 4.6.1 In approving this waiver without subjecting the contract to competition, there is a risk of challenge to the Council from other potential providers that have not been given the chance to tender for this opportunity.

5 Conclusions

- 5.1 In order to keep pace with our competitors in this difficult financial climate but at the same time be able to make a significant reduction in costs we feel that video technology enables us to deliver value for money without compromising data quality.
- 5.2 The total cost of the 4 camera units and accessories can be recouped within first 12 months through cost savings against our existing data collection method and the potential for generating external income.
- 5.3 Miovision Technologies Inc. is the sole manufacturer of software and portable camera hardware which offers unique analysis of MCC surveys. Video on the Miovision platform is processed with analysis software that uses specially developed algorithms and systems and is protected by U.S. patent 20080270569.

5.4 In conclusion we believe the Miovision product is a unique product and as such the waiver is the appropriate.

6 Recommendations

6.1 The Chief Officer (Highway and Transportation) is requested to approve: 9– ‘High Value Procurements’.

- i) the waiver of Contract Procedure Rule: 9.1 and 9.2 – ‘High Value Procurements’;
- ii) the entering into a contract with Miovision Technologies for the purchase of 4 Scout Video Collection Units; and
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7 Background documents¹

7.1 None

¹ The background documents listed in this section are available to download from the Council’s website, unless they contain confidential or exempt information. The list of background documents does not include published works

Appendix A

Equality, Diversity, Cohesion and Integration Screening



As a public authority we need to ensure that all our strategies, policies, service and functions, both current and proposed have given proper consideration to equality, diversity, cohesion and integration.

A **screening** process can help judge relevance and provides a record of both the **process** and **decision**. Screening should be a short, sharp exercise that determines relevance for all new and revised strategies, policies, services and functions. Completed at the earliest opportunity it will help to determine:

- the relevance of proposals and decisions to equality, diversity, cohesion and integration.
- whether or not equality, diversity, cohesion and integration is being/has already been considered, and
- whether or not it is necessary to carry out an impact assessment.

Directorate: City Development	Service area: Highways and Transportation
Lead person: Paul Foster	Contact number: 0113 3952586

1. Title: Waiver Report for purchase of Scout Video Collection Units to undertake Manual Traffic Counts

Is this a:

☐

Strategy / Policy

☒

Service / Function

☐

Other

If other, please specify

2. Please provide a brief description of what you are screening

Waiver Report for the purchase of Scout Video Collection Units

3. Relevance to equality, diversity, cohesion and integration

All the council's strategies/policies, services/functions affect service users, employees or the wider community – city wide or more local. These will also have a greater/lesser relevance to equality, diversity, cohesion and integration.

The following questions will help you to identify how relevant your proposals are.

When considering these questions think about age, carers, disability, gender reassignment, race, religion or belief, sex, sexual orientation and any other relevant characteristics (for example socio-economic status, social class, income, unemployment, residential location or family background and education or skills levels).

Questions	Yes	No
Is there an existing or likely differential impact for the different equality characteristics?		X
Have there been or likely to be any public concerns about the policy or proposal?	X	
Could the proposal affect how our services, commissioning or procurement activities are organised, provided, located and by whom?		X
Could the proposal affect our workforce or employment practices?		X
Does the proposal involve or will it have an impact on <ul style="list-style-type: none"> • Eliminating unlawful discrimination, victimisation and harassment • Advancing equality of opportunity • Fostering good relations 		X

If you have answered **no** to the questions above please complete **sections 6 and 7**

If you have answered **yes** to any of the above and;

- Believe you have already considered the impact on equality, diversity, cohesion and integration within your proposal please go to **section 4**.
- Are not already considering the impact on equality, diversity, cohesion and integration within your proposal please go to **section 5**.

<p>4. Considering the impact on equality, diversity, cohesion and integration</p>
<p>If you can demonstrate you have considered how your proposals impact on equality, diversity, cohesion and integration you have carried out an impact assessment.</p> <p>Please provide specific details for all three areas below (use the prompts for guidance).</p>
<p>Possible perception of intrusion upon private privacy with the use of video camera technology. There will total transparency to why the equipment is being employed with contact details for further information to allay any fears.</p> <p>All relevant parties will be informed of the survey activity prior to the start date as is the case for External Survey Protocol recently set up to monitor surveys being undertaken by external companies.</p>
<p>• Key findings (think about any potential positive and negative impact on different equality characteristics, potential to promote strong and positive relationships between groups, potential to bring groups/communities into increased contact with each other, perception that the proposal could benefit one group at the expense of another)</p>
<p>• Actions No specific actions have been identified as part of the screening process.</p>

<p>5. If you are not already considering the impact on equality, diversity, cohesion and</p>
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integration you will need to carry out an impact assessment .	
Date to scope and plan your impact assessment:	N/A
Date to complete your impact assessment	N/A
Lead person for your impact assessment (Include name and job title)	N/A

6. Governance, ownership and approval Please state here who has approved the actions and outcomes of the screening		
Name	Job title	Date
Liz Hunter	Transport Strategy Manager	21/07/2014

7. Publishing <p>This screening document will act as evidence that due regard to equality and diversity has been given. If you are not carrying out an independent impact assessment the screening document will need to be published.</p> <p>If this screening relates to a Key Delegated Decision, Executive Board, full Council or a Significant Operational Decision a copy should be emailed to Corporate Governance and will be published along with the relevant report.</p> <p>A copy of all other screenings should be sent to equalityteam@leeds.gov.uk. For record keeping purposes it will be kept on file (but not published).</p>	
Date screening completed	21 st July 2014
If relates to a Key Decision - date sent to Corporate Governance	
Any other decision – date sent to Equality Team (equalityteam@leeds.gov.uk)	